TUBERCULOSIS OF THE BREAST.[1]

By CHARLES A. POWERS, M.D.,

OF NEW YORK,

SURGEON TO ST. LUKE'S HOSPITAL AND TO THE NEW YORK CANCER HOSPITAL.

A CAREFUL search of the medical literature of our own country reveals but one authentic instance[2] of the affection to which I invite your attention, and the paucity of other references to the subject, the small number of recorded cases, lead me to think it worthy of consideration by this Society.

My own interest was excited by the observation of the following case which I saw, some years ago, in the wards of Dr. W. T. Bull, at the New York Hospital.

CASE I.—M. B., twenty-six years, a native of Ireland, married, was admitted to the hospital, October 6, 1886. Her family history was devoid of interest. She had given birth to one child, two and a half years previously, nursing it with the right breast only. She had always been of spare frame, but had enjoyed good general health, and had not, of late, lost flesh or strength.

Three weeks before being seen, the left breast became the seat of sharp pains and soon afterwards began to swell. On examination this breast was found to be slightly enlarged, and just below the nipple, which was retracted, a hard, nodular swelling the size of the fist.

This tumor was freely movable on the deeper tissues, the skin over it was red and adherent over an area the size of a silver dollar, at which point fluctuation was detected. Enlarged veins covered the breast and there was a swollen gland to be felt in the axilla.

The right breast seemed normal. Operation October 7, 1886, by Dr. Bull. An exploratory incision detected a little pus and a

[1] Read before the New York Surgical Society, May 23, 1894.

[2] Ely, Transactions of the New York Pathological Society, 1890, p. 81.

grayish-looking, nodular mass, somewhat resembling carcinoma. Excision of the gland and of the axillary contents in the usual manner. Catgut drain in the axilla; primary union except at the site of the drain.

Histological report by Dr. F. Ferguson. "The tumor of the breast is made up largely of tuberculous tissue, surrounded by inflammatory areas and by connective tissue. The tubercular areas are chiefly located in the glandular acini, but they are occasionally found, as well, in the excretory ducts. Occasional vessels are found whose calibre is markedly encroached upon by growth from the intima."

I saw this patient in January, 1890, three years after the operation. The scar was soft and free from any evidence of recurrence either in the chest or axilla. No enlarged glands were to be felt above or below the clavicle.

The patient was emaciated, weak, and anæmic. She had constant cough and expectoration. There were evidences of consolidation at both apices.

I sought her again one year later, but the people in the neighborhood said that she had died of pulmonary consumption.

When we turn to literature for references to companion cases of this affection, we find authentic records of but few instances. Thus, after a thorough search of the accessible literature, in which task I have had the valuable aid of Dr. George R. White, I find but thirty-four cases[1] in which the presence of tuberculosis of the breast was found by histological examination. Numerous additional cases have been reported, in which the diagnosis rests on clinical grounds alone. That such may very well be subject to error, however, is shown by the following illustrative case, which is also taken from the case-books of Dr. Bull:

CASE II.—Mrs. G., forty years; widow. The family history was negative. She had borne one child. This she had nursed, but had had no inflammation or other trouble with either breast until three weeks previously, at which time she had strained the right arm while lifting. Shortly afterwards she had noticed a small lump above the

[1] Reported by Mandry, Dubar, Duret, Olnacker, Poivier, Orthmann, Kramer, Piskacek, Héring, Roux, Berchtold, Hebb, Dubrueil, Shattock, Bender, Campénon, Lane, and Ely.

right nipple. This lump became enlarged and tender. The following week the entire gland was enlarged. Examination revealed a diffuse mass occupying the entire right breast, which was irregular, firm, and tender. Lumps were felt in the axilla. Operation March 20, 1891. Excision of the breast and axillary contents. No drainage. Primary union.

On section, the cut surface of the breast appeared of a grayish-white color, with numerous suppurative foci. A provisional diagnosis of tuberculosis was made, but careful microscopic examination at the hands of Dr. Ferguson and myself revealed no evidence of other lesion than that of chronic inflammatory mastitis.

Eliminating, then, the cases not subjected to microscopical examination, we find 35 instances[1] of tuberculosis of the breast.

Of these 34 were in females, one in a male. Of the 34 women 22 were married, 5 single; in 8 the civil condition was not mentioned; 21 of the 22 married women had borne children, and 6 had suffered with a suppurative inflammation of the breast, while 3 others had had an inflammation not going on to suppuration.

In 18 the right breast was affected, in 14 the left, both glands in 1, while in 2 the side was not stated.

As regards age, the youngest patient was 17 years, the oldest 52, 4 were under 20, 11 between 21 and 30, 9 between 31 and 40, 10 between 41 and 50, 1 over 50.

From this we may assume, as indeed we might expect, that the puerperal state and subsequent lactation are not without predisposing influence. The appearance of the disease is, however, evenly distributed throughout the third, fourth, and fifth decades of life.

As to the relative frequency, we can form no approximate estimate from the scanty data at our disposal.

Of contributory interest is the fact that of 185 primary operations for breast neoplasms, conditions other than mastitis, occurring in the practice of a single surgeon, Dr. Bull, but one instance of tuberculosis is found, all of the cases having been subjected to histological examination.

[1] The aid rendered by the valuable paper of Mandry is herewith acknowledged.

Pathology.[1]—The tuberculous breast may be larger or smaller than normal. It may appear normal to the eye, or it may be the seat of fistulæ. There may be a single, large, fluctuating swelling, or several small ones. The skin over these may seem normal, or it may be thinned and discolored.

There may or may not be glandular nodules leading to it found in the axilla. There may be axillary fistulæ. At times there are one or more hardened nodular masses felt in the breast-substance.

The fistulæ, if they be present, have thin, undermined, discolored edges, and secrete a thin caseous pus, in which the tubercle bacilli may be found.

On cut section the breast may show one or many nodules of irregular size, broken down in the centre, the cavity lined by an irregular, thickened, soft, grayish, shreddy membrane.

These cavities have outrunning branches, and the larger generally communicate. The surrounding tissue may be the seat of disseminated tubercles of varying sizes.

In some instances the entire breast is the seat of a circumscribed abscess, filled with thin, caseous pus.

The glands leading to the axilla and those therein may be normal, but are more often hyperplastic or tuberculous. Exceptionally the axilla may be the seat of a tuberculous abscess.

Microscopically the affected tissue does not differ from that found in other organs. Giant cells containing the bacilli are found in the breast. The bacilli are in greater abundance, however, in the affected lymphatics.

Symptoms and Course.—This may be surmised from the foregoing. At times the attention of the patient is attracted by the discovery of a lump in the breast, at times by a feeling of distention, more often, perhaps, by pain.

The lumps increase in size slowly, they may remain stationary for a considerable period. The skin may become thin, discolored, break, and the cavity discharge a thin, caseous pus. The fistulæ do not tend to heal, thus differing from those of non-

[1] Mandry, loc. cit.

tuberculous mastitis. Axillary evidences may occur early or late.

Diagnosis.—This can be made with certainty only from the microscopic investigation.

In certain cases well progressed the clinical diagnosis will be a probably correct one. So, in a woman of spare form, "tuberculous" appearance, with a history of glandular or joint tuberculosis in youth, or with coexistent lung infection, the presence of a suppurative breast affection of considerable duration with fistulous tracts and axillary involvement, will lead one to the thought of tuberculosis. In the earlier stages diagnosis will be very difficult. A subacute or chronic mastitis may simulate it very closely, so, as well, beginning carcinoma, fibroma, or adenoma, less probably would a cyst or sarcoma occasion error.

Treatment.—Since the recorded cases show that in the majority of instances a considerable portion of the breast tissue is infiltrated with tuberculous foci, and that the axillary glands are also involved,[1] we readily conclude that radical treatment calls for the removal of the breast and the axillary contents.

Simple opening of abscesses with scraping of the walls and of fistulæ may in exceptional instances lead to permanent cure. Recurrence will, however, generally take place. As in carcinoma, we are to explore the axilla, even though nothing be felt on palpation.

Prognosis.—Of the thirty-five collected cases, two, those of Orthmann and Héring, died of general tuberculosis, the breast affection being discovered only at the autopsy.

Of the remaining thirty-three but two cases were followed after operation, these dying of phthisis in one and four years respectively.

In general we may assume that local recurrence should not take place after thorough removal, in cases in which the axillary glands are slightly or moderately involved.

When, however, these are extensively invaded, it is probable that the process affects as well inaccessible glands. The ten-

[1] Twenty-four cases out of the thirty-five.

dency to implication of the lungs is, perhaps, greater than in the tuberculous affections of more distant parts.

Summary.—The relative frequency of tuberculosis of the breast cannot be approximately estimated from present data. It may in general be considered of infrequent occurrence.

Diagnosis must rest upon microscopic examination.

Adequate treatment calls for the removal of the gland and the axillary contents.

The prognosis as regards local recurrence is good.

Where possible, local operative treatment should be supplemented by placing the patients under climatic and other conditions suited to the prevention and cure of tuberculosis in general.

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